

# Effects of climate change on natural resources and communities: A compendium of briefing papers

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#### Abstract:

This report is a compilation of four briefing papers based on literature reviews and syntheses, prepared for USDA Forest Service policy analysts and decisionmakers about specific questions pertaining to climate change. The main topics addressed here are effects of climate change on wildlife habitat, other ecosystem services, and land values; socioeconomic impacts of climate change on rural communities; and competitiveness of carbon offset projects on nonindustrial private forests in the United States. The U.S. private forest offset projects tend to be less costly than European projects but more expensive to implement than those in tropical forests in developing countries. Important policy considerations involving any mitigation actions include effects on other ecosystem services, such as wildlife habitat, and determining baselines and additionality. Stacking of ecosystem services payments or credits with carbon offset payments may be crucial in improving the participation of private forest owners. Potential social impacts of climate change are discussed in terms of health effects on rural communities and climate change sensitivity of indigenous communities. Potential economic impacts on rural communities are discussed for agriculture, forestry, recreation and tourism, fisheries, water resources, and energy. Salient findings from the literature are summarized in the synthesis of the literature, along with identified research needs.

Source: https://www.fs.fed.us/pnw/pubs/pnw\_gtr837.pdf

#### **Resource Description**

#### Communication: M

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

#### Communication Audience: M

audience to whom the resource is directed

Policymaker

#### Exposure: M

weather or climate related pathway by which climate change affects health

#### Climate Change and Human Health Literature Portal

Ecosystem Changes, Food/Water Security

Geographic Feature: M

resource focuses on specific type of geography

Rural, Other Geographical Feature

Other Geographical Feature: Forest

Geographic Location:

resource focuses on specific location

**United States** 

#### Health Co-Benefit/Co-Harm (Adaption/Mitigation): ☐

specification of beneficial or harmful impacts to health resulting from efforts to reduce or cope with greenhouse gases

A focus of content

Health Impact: M

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

mitigation or adaptation strategy is a focus of resource

Adaptation, Mitigation

Other Projection Model/Methodology: Discussion only

Population of Concern: A focus of content

Population of Concern: M

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status

Resource Type: M

format or standard characteristic of resource

Policy/Opinion

Resilience: M

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

A focus of content

Timescale: M

time period studied

## Climate Change and Human Health Literature Portal

Time Scale Unspecified

### Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system A focus of content